

Saturation Properties for Water — Temperature Increments

Liquid Phase Data

Data on Saturation Curve

Temperature (C)	Pressure (bar)	Density (kg/m ³)	Volume (m ³ /kg)	Internal Energy (kJ/kg)	Enthalpy (kJ/kg)	Entropy (J/g*K)	Cv (J/g*K)	Cp (J/g*K)	Sound Spd. (m/s)	Joule- Thomson (K/bar)	Viscosity (uPa*s)	Therm. Cond. (W/m*K)	Surf. Tension (N/m)	Phase
5.0000	0.0087258	999.92	0.0010001	21.019	21.020	0.076254	4.2053	4.2055	1426.0	-0.023676	1518.3	0.57052	0.074942	liquid
6.0000	0.0093536	999.89	0.0010001	25.223	25.224	0.091342	4.2026	4.2032	1430.4	-0.023588	1471.6	0.57242	0.074799	liquid
7.0000	0.010021	999.86	0.0010001	29.425	29.426	0.10637	4.1998	4.2010	1434.8	-0.023502	1427.2	0.57432	0.074655	liquid
8.0000	0.010730	999.80	0.0010002	33.626	33.627	0.12133	4.1970	4.1991	1439.0	-0.023417	1384.8	0.57622	0.074511	liquid
9.0000	0.011483	999.74	0.0010003	37.824	37.825	0.13624	4.1940	4.1972	1443.1	-0.023333	1344.5	0.57811	0.074366	liquid
10.000	0.012282	999.65	0.0010003	42.020	42.021	0.15109	4.1910	4.1955	1447.1	-0.023251	1306.0	0.58000	0.074221	liquid
11.000	0.013130	999.56	0.0010004	46.215	46.216	0.16587	4.1879	4.1940	1451.0	-0.023170	1269.2	0.58188	0.074075	liquid
12.000	0.014028	999.45	0.0010005	50.408	50.409	0.18061	4.1847	4.1925	1454.9	-0.023090	1234.1	0.58376	0.073929	liquid
13.000	0.014981	999.33	0.0010007	54.600	54.601	0.19528	4.1815	4.1912	1458.6	-0.023012	1200.5	0.58562	0.073782	liquid
14.000	0.015990	999.20	0.0010008	58.790	58.792	0.20990	4.1782	4.1899	1462.2	-0.022935	1168.4	0.58748	0.073634	liquid
15.000	0.017058	999.06	0.0010009	62.980	62.981	0.22446	4.1748	4.1888	1465.8	-0.022858	1137.6	0.58933	0.073486	liquid
16.000	0.018188	998.90	0.0010011	67.168	67.170	0.23897	4.1714	4.1878	1469.2	-0.022783	1108.1	0.59117	0.073337	liquid
17.000	0.019384	998.73	0.0010013	71.355	71.357	0.25343	4.1679	4.1868	1472.6	-0.022709	1079.9	0.59300	0.073188	liquid
18.000	0.020647	998.55	0.0010014	75.542	75.544	0.26783	4.1643	4.1859	1475.9	-0.022636	1052.7	0.59482	0.073038	liquid
19.000	0.021983	998.36	0.0010016	79.727	79.729	0.28218	4.1607	4.1851	1479.1	-0.022563	1026.7	0.59663	0.072887	liquid
20.000	0.023393	998.16	0.0010018	83.912	83.914	0.29648	4.1570	4.1844	1482.2	-0.022492	1001.6	0.59842	0.072736	liquid
21.000	0.024882	997.95	0.0010021	88.096	88.098	0.31073	4.1533	4.1837	1485.2	-0.022421	977.59	0.60019	0.072584	liquid
22.000	0.026453	997.73	0.0010023	92.279	92.282	0.32493	4.1495	4.1831	1488.2	-0.022352	954.46	0.60196	0.072432	liquid
23.000	0.028111	997.50	0.0010025	96.462	96.465	0.33908	4.1457	4.1825	1491.0	-0.022283	932.19	0.60370	0.072279	liquid
24.000	0.029858	997.25	0.0010028	100.64	100.65	0.35318	4.1418	4.1820	1493.8	-0.022214	910.76	0.60544	0.072126	liquid
25.000	0.031699	997.00	0.0010030	104.83	104.83	0.36722	4.1379	4.1816	1496.5	-0.022147	890.11	0.60715	0.071972	liquid
26.000	0.033639	996.74	0.0010033	109.01	109.01	0.38123	4.1339	4.1812	1499.2	-0.022080	870.20	0.60885	0.071818	liquid
27.000	0.035681	996.47	0.0010035	113.19	113.19	0.39518	4.1299	4.1809	1501.7	-0.022014	851.01	0.61053	0.071663	liquid
28.000	0.037831	996.19	0.0010038	117.37	117.37	0.40908	4.1258	4.1806	1504.2	-0.021948	832.49	0.61219	0.071507	liquid
29.000	0.040092	995.90	0.0010041	121.55	121.55	0.42294	4.1217	4.1803	1506.6	-0.021884	814.62	0.61383	0.071351	liquid
30.000	0.042470	995.61	0.0010044	125.73	125.73	0.43675	4.1175	4.1801	1509.0	-0.021819	797.36	0.61546	0.071194	liquid
31.000	0.044969	995.30	0.0010047	129.91	129.91	0.45052	4.1133	4.1799	1511.3	-0.021755	780.68	0.61706	0.071037	liquid
32.000	0.047596	994.99	0.0010050	134.09	134.09	0.46424	4.1091	4.1798	1513.5	-0.021692	764.56	0.61865	0.070879	liquid
33.000	0.050354	994.66	0.0010054	138.27	138.27	0.47792	4.1048	4.1796	1515.6	-0.021630	748.98	0.62021	0.070721	liquid
34.000	0.053251	994.33	0.0010057	142.45	142.45	0.49155	4.1005	4.1796	1517.7	-0.021567	733.90	0.62176	0.070562	liquid
35.000	0.056290	993.99	0.0010060	146.63	146.63	0.50513	4.0961	4.1795	1519.7	-0.021506	719.31	0.62328	0.070402	liquid

Reference States

Internal energy	U = 0 at 273.16 K for saturated liquid.
Entropy	S = 0 at 273.16 K for saturated liquid.

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